

DATA MATRIX

This section also fulfills requirements for the selective method of data submission for registration for the food use formulated product Acramite™-4L SC. Uniroyal is the sole registrant of technical and end-use products containing bifenazate. All studies cited are the property of Uniroyal Chemical Company, Inc.

DATA REQUIREMENT LISTING FOR THE OWNER SUBMISSION METHOD OF SUPPORT

1. PRODUCT NAME: Acramite™-4L SC	2. EPA REG. NO./FILE SYMBOL: 400-	3. FORMULATOR'S EXEMPTION SELECTED YES _____ No _____	4. PAGE 1 OF 29
5. APPLICANT'S NAME AND ADDRESS: Uniroyal Chemical Co., Inc. Benson Rd. Middlebury, CT 06749	6. APPLICATION FOR REGISTRATION DATED: JUNE 7, 2002 Mo. Day Year	7. NAME OF ACTIVE INGREDIENT(S): Bifenazate	

DATA MATRIX

1. SUBMITTED STUDIES

EPA MRID No.	GUIDELINE REF. NO.	STUDY
	830.1550	Drozdzick, M.D. (Sept. 15, 2000) Product Identity and Disclosure of Ingredients for Acramite 4L SC. Project No. 2000-171. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
	830.1600 830.1650	Drozdzick, M.D. (Sept. 15, 2000) Beginning Materials and Manufacturing process for Acramite-4L SC. Project No. 2000-172. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
	830.1700	Brown, M.H. (Aug. 22, 2001) Preliminary Analysis of UCC D-2341 4L SC. Project No. GRL-11869. An unpublished study report prepared at Uniroyal Chemical, Guelph, Ontario, Canada. 7 pages plus Confidential Attachment.
	830.1750	Drozdzick, M.D. (Sept. 28, 2001) Certification of Limits for Acramite-4L SC. Project No. 2001-086. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
	830.1670	Drozdzick, M.D. (Sept. 15, 2000) Theoretical Discussion of Formation of Impurities for Acramite-4L SC. Project No. 2000-173. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
	830.1800	Brown M.H. (Oct. 5, 2000) Analytical Method for the Determination of Bifenazate in UCC D-2341 4L SC. Project No. GRL-11753. An unpublished study report prepared at Uniroyal Chemical, Guelph, Ontario, Canada. 31 pages.

1. SUBMITTED STUDIES

EPA MRID No.	GUIDELINE REF. No.	STUDY
	830.6302 830.6303 830.6304 830.6314 830.7000 830.7100 830.7300	Dunn, N. (Oct. 18, 2001) The Physical and Chemical Characteristics of Acramite 4L (Bifenazate 480 g/l SC). Project No. GRL-FR-11839. An unpublished study report prepared at Uniroyal Chemical, Guelph, Ontario, Canada. 58 pages.
	830.6315 830.6316	Tremain, S.P. (Aug. 31, 2000) Determination of Flash Point, Explosion Properties and Auto-Ignition Temperatures (Liquids and Gases). Project No. 2000-121. An unpublished study report prepared at Uniroyal Chemical, Guelph, Ontario, Canada. 21 pages.
	830.6317 830.6320	Brown, M.H. (May 31, 2002) Determination of the Storage Stability of Acramite-4L (Bifenazate 480g/L SC) in Commercial Packaging for One Year (Interim Report). Project No. 2001-106. An unpublished study report prepared at Uniroyal Chemical, Guelph, Ontario, Canada. 33 pages.

DATA MATRIX

2. REFERENCED STUDIES TO SUPPORT THIS REGISTRATION

The following acute toxicology studies using Acramite-4L were previously submitted to the Agency to support registration of Acramite SC and Acramite SC/LS. Those studies and the assigned MRID numbers are:

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45375806	870.110	Graver, K.B. (May 25, 2000) Acute Oral Toxicity / LD ₅₀ in Rats. Project #MB 99-7959.01. An unpublished study report prepared at MB Research Laboratories, Spinnerstown, PA. 14 pages.
45375807	870.1200	Cerven, D.R. (May 26, 2000) Acute Dermal Toxicity in Rabbits / LD ₅₀ in Rabbits. Project #MB 99-7959.02. An unpublished study report prepared at MB Research Laboratories, Spinnerstown, PA. 13 pages.
45375808	870.2400	Cerven, D.R. (May 26, 2000) Acute Eye Irritation in Rabbits. Project #MB 99-7959.04. An unpublished study report prepared at MB Research Laboratories, Spinnerstown, PA. 10 pages.
45375809	870.2500	Hoff, T. (May 24, 2000) Acute Dermal Irritation in Rabbits. Project #MB 99-7959.03. An unpublished study report prepared at MB Research Laboratories, Spinnerstown, PA. 10 pages.
45375810	870.2600	Hall, D. (May 24, 2000) Delayed Contact Dermal Sensitization Test - Buehler Method. Project #MB 99-7959.06. An unpublished study report prepared at MB Research Laboratories, Spinnerstown, PA. 15 pages.
45375811	870.2600	Hilaski, R.J. (Jan. 2, 2001) An Acute Inhalation Toxicity Study of D2341 4L SC in Rats (D2341 4L SC = Floramite SC). Laboratory Project #860-001. An unpublished study report prepared at MPI Research, Inc. Mattawan, MI. 125 pages.

DATA MATRIX

3. STUDIES PREVIOUSLY SUBMITTED FOR NON- FOOD USE REGISTRATION

Pesticide Product Data Submission for Floramite (contains active ingredient bifenazate) and Bifenazate Technical
Part 1 – Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. NO.	STUDY
NA	NA	EPA Occupational Exposure and Risk Assessment
NA	NA	EPA Environmental Risk Assessment
NA	NA	EPA Drinking Water Assessment
44464923	61-1 830.1550	White, C.K. (8/11/97) Bifenazate Product Identity and Composition. Uniroyal Chemical Company, Inc. Report No. 97036. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 5 pages plus Confidential Attachment.
44464924	61-2(a) 830.1600	Feiccabrino, J.A. (8/8/97) Description of Materials Used to Produce Bifenazate. Uniroyal Chemical Company, Inc. Report No. 97037. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 4 pages plus Confidential Attachment.
44464925	61-2(a) 830.1620	White, C.K. (8/8/97) Description of the Production Process of Bifenazate (D2341). Uniroyal Chemical Company, Inc. Report No. 97038. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 5 pages plus Confidential Attachment.
44464926	61-2(b) 830.1670	White, C.K. (8/8/97) Discussion of Formation of Impurities in the Production of Bifenazate. Uniroyal Chemical Company, Inc. Report No. 97039. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 4 pages plus Confidential Attachment.
44464902	62-1 830.1700	Tutty, D.G. (7/28/97). Preliminary Analysis of Experimental Miticide D2341 Technical. Uniroyal Chemical Company, Inc. Report No. 9571. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 6 pages plus Confidential Attachment.

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EPA MRID No.	GUIDELINE REF. NO.	STUDY
44472701	62-2 830.1750	White, C.K. (9/18/97) Bifenazate Certified Limits and Confidential Statement of Formula. Uniroyal Chemical Company, Inc. Report No. 97040. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 6 pages plus Confidential Attachment.
44464927	62-2 830.7050	Yu, Wan S. (11/3/97) Determination of Ultraviolet/Visible Absorption Spectrum for Purified Bifenazate. Uniroyal Chemical Company, Inc. Report No. 97055. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 15 pages.
44464903	62-3	Tutty, D.G. (7/30/97). Analytical Methods for the Compositional Analysis of Experimental Miticide D2341. Uniroyal Chemical Company, Inc. Report No. 9573. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 63 pages.
44464904	63-2 830.6302	Tutty, D.G. (10/13/95). Determination of the Color of D2341 Technical Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9574. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 12 pages.
44464905	63-3 830.6303	Tutty, D.G. (10/13/95). Determination of the Physical State of D2341 Technical Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9575. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 13 pages.
44464906	63-4 830.6304	Tutty, D.G. (10/13/95). Determination of the Odor of D2341 Technical Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9576. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 13 pages.
44464907	63-5 830.7200	Riggs, A.S. (3/6/96) The Melting Point Range of Technical D2341 Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9577. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 14 pages.

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Part 1 – Studies Using Bifenazate Technical

EPA MRID No	GUIDELINE REF. NO.	STUDY
44464908	63-7 830.7300	Tutty, D.G. (10/13/95). Determination of the Density of D2341 Technical Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9578. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 17 pages.
44464909	63-8 830.7840	Riggs, A.S. (9/20/93). Solubility of Experimental Miticide D2341 in Water. Uniroyal Chemical Company, Inc. Report No. 92187. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 22 pages.
44459401	63-8 830.7840	Riggs, A.S. (8/29/97). The Solubility of Technical D2341 Experimental Miticide in Organic Solvents. Uniroyal Chemical Company, Inc. Project No. 9579. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 18 pages.
44459402	63-8 830.7840	Riggs, A.S. (8/28/97). The Solubility of Technical D2341 Experimental Miticide in Aqueous Buffers. Uniroyal Chemical Company, Inc. Project No. 96091. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 14 pages.
44464910	63-9 830.7950	Penny, H.B. (11/6/96) Determination of the Vapour Pressure of D2341. Uniroyal Chemical Company, Inc. Report No. 9580. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 14 pages.
44464911	63-10	Yu, W.S. (7/11/97) Determination of the Dissociation Constant of D2341 Using a Spectrophotometric Method. Report No. 9581. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 13 pages.
44464912	63-11 830.7550	Riggs, A.S. (8/31/93) Determination of the N-Octanol/Water Partition Coefficient (P_{ow}) of D2341 Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 92186. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 23 pages.

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Pesticide Product Data Submission for Floramite (contains active ingredient bifenazate) and Bifenazate Technical
Part 1 – Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. NO.	STUDY
44464913	63-12 830.7000	Brown, M.H. (11/30/95) Determination of the pH of D2341 Technical. Uniroyal Chemical Company, Inc. Report No. 9582. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 15 pages.
44464914	63-13 830.6313	Riggs, A.S. (3/5/96) Accelerated Storage Test for D2341 Experimental Miticide. Uniroyal Chemical Company, Inc. Report No. 9583. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 25 pages.
44464915	63-13 830.6313	Riggs, A.S. (3/5/96) The Stability of D2341 Experimental Miticide in Sunlight. Uniroyal Chemical Company, Inc. Report No. 9584. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 25 pages.
44464916	63-13 830.6313	Riggs, A.S. (4/4/96) The Stability of D2341 Experimental Miticide in the Presence of Metals and Metal Ions. Uniroyal Chemical Company, Inc. Report No. 9585. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 24 pages.
44464917	63-14 830.6314	Donnelly, S.L. (2/1/96) Determination of the Oxidizing and Reducing Characteristics of D2341 Technical. Uniroyal Chemical Company, Inc. Report No. 9587. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 16 pages.
44464918	63-15 830.6315	Donnelly, S.L. (4/10/96) Determination of the Flash Point of D2341 Technical. Uniroyal Chemical Company, Inc. Report No. 9588. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 16 pages.
44464919	63-16 830.6316	White, C.K. (2/21/97) Thermal Explodability of D2341 Technical. Uniroyal Chemical Company, Inc. Report No. 9589. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 16 pages.

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Part 1 - Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. No.	STUDY
44464920	63-17 830.6317	Tutty, D.G. (2/11/97) Determination of the Storage Stability of D2341 Technical in HDPE Bags. One Year Study. Uniroyal Chemical Company, Inc. Report No. 9590. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 11 pages.
44464921	63-20 830.6320	Tutty, D.G. (10/11/96) Determination of the Corrosion Characteristics of Packaging Holding D2341 Technical, One Year Study. Uniroyal Chemical Company, Inc. Report No. 9592. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 10 pages.
44464922	Voluntary Report	White, C.K. (8/29/97) Calculation of Henry's Law Constant for Bifenazate. Uniroyal Chemical Company, Inc. Report No. 97044. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 4 pages.
NA	64-1	Submittal of sample - sample sent to Beltsville Laboratory
44464928	71-1	Pederson, C.A. (8/26/96). Acute Avian Oral Toxicity (LD ₅₀) Study with D2341 Technical in Bobwhite Quail. Laboratory Project No. BLAL 109-025-03. An unpublished study report prepared at Bio-Life Associates, Ltd., Neillsville, WI. 54 pages.
44464929	71-2(a)	Pederson, C.A. and B.R. Helsten (8/26/96). Acute Avian Dietary Toxicity (LC ₅₀) Study with D2341 Technical in Bobwhite Quail. Laboratory Project No. BLAL 109-023-01. An unpublished study report prepared at Bio-Life Associates, Ltd., Neillsville, WI. 97 pages.
44464930	71-2(b)	Pederson, C.A. and B.R. Helsten (8/26/96). Acute Avian Dietary Toxicity (LC ₅₀) Study with D2341 Technical in Mallard Ducklings. Laboratory Project No. BLAL 109-024-02. An unpublished study report prepared at Bio-Life Associates, Ltd., Neillsville, WI. 96 pages.
44779601	71-4	Lengen, M.R., (3/2/99). Bifenazate: Preliminary Data from Avian Reproduction Studies. Lab project nos. 109-03-07 and 109-031-08. An unpublished report of preliminary data prepared at Bio-Life Associates, Ltd., Neillsville, WI. 17 pages.

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EPA MRID No.	GUIDELINE REF. NO.	STUDY
44464931	72-1	Graves, W.C. and J.P. Swigert (5/28/97). D2341 Technical: A 96-Hour Flow-Through Acute Toxicity Test with the Bluegill (<i>Lepomis macrochirus</i>). Laboratory Project No. 117A-101. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 64 pages.
44464932	72-1	Graves, W.C. and J.P. Swigert (5/28/97). D2341 Technical: A 96-Hour Flow-Through Acute Toxicity Test with the Rainbow Trout (<i>Oncorhynchus mykiss</i>). Laboratory Project No. 117A-102. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 64 pages.
44464933	72-2	Graves, W.C. and J.P. Swigert (5/28/97). D2341 Technical: A 48-Hour Flow-Through Acute Toxicity Test with the Cladoceran (<i>Daphnia magna</i>). Laboratory Project No. 117A-103A. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 63 pages.
44896001	72-3	Graves, W.C. and H.O. Krieger (3/23/99). D2341 Technical (Bifenazate): A 96-Hour Flow-Through Acute Toxicity Test with the Sheepshead minnow. Laboratory Project No. 117A-104. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 64 pages.
44896002	72-3	Graves, W.C. and H.O. Krieger (3/24/99). D2341 Technical (Bifenazate): A 96-Hour Flow-Through Acute Toxicity Test with the Saltwater Mysid (<i>Mysidopsis bakia</i>). Laboratory Project No. 117A-105. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 63 pages.
44464934	81-1	Hoffman, G.M. (8/8/96). Acute Oral Toxicity Study with D2341 Technical in Rats. Laboratory Report No. 95-1199. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 38 pages.
44464935	81-1	Hoffman, G.M. (8/8/96). Acute Oral Toxicity Study with D2341 Technical in Mice. Laboratory Report No. 95-1198. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 40 pages.

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EPA MRID No.	GUIDELINE REF. NO.	STUDY
44464936	81-2	Hoffman, G.M. (8/8/96). Acute Dermal Toxicity Study with D2341 Technical in Rats. Laboratory Report No. 95-1200. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 20 pages.
44464937	81-3	Hoffman, G.M. (8/8/96). An Acute (4-hour) Inhalation Toxicity Study with D2341 Technical in the Rat Via Nose-Only Exposure. Laboratory Report No. 95-5239. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 60 pages.
44464938	81-4	Hoffman, G.M. (8/8/96). Primary Eye Irritation Study with D2341 Technical in Rabbits. Laboratory Report No. 95-1202. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 26 pages.
44464939	81-5	Hoffman, G.M. (8/8/96). Primary Dermal Irritation Study with D2341 Technical in Rabbits. Laboratory Report No. 95-1201. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 19 pages.
44464940	81-6	Hoffman, G.M. (8/8/96). Closed-Patch Repeated Insult Dermal Sensitization Study with D2341 Technical in Guinea Pigs. Laboratory Report No. 95-1203. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 35 pages.
44464941	82-1	Trutter, Janet A. (6/6/97). 90-Day Dietary Toxicity Study in Rats with D2341. Laboratory Report No. 798-227. An unpublished study report prepared at Covance Laboratories, Inc., Vienna, VA. 585 pages.
44472702	82-1	Goldenthal, E.I. (8/20/97). 90-Day Dietary Toxicity Study in Dogs. Laboratory Report No. 399-191. An unpublished study report prepared at MPI Research, Mattawan, MI. 320 pages.
44778401	82-2	Goldenthal, E.I. (10/20/98). 21-Day Dermal Toxicity Study in Rats. Study No. 399-197. An unpublished study report prepared at MPI Research, Mattawan, MI. 215 pages.

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Part 1 – Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. NO.	STUDY
44464942	83-2	Trutter, J.A. 104 Week Combined Chronic Dietary Toxicity and Oncogenicity Study in Rats with D2341. Laboratory Project No. 798-229. A one year unpublished status report prepared at Covance Laboratories, Inc., Vienna, VA. 812 pages.
44464943	83-3	Denny, Kevin H. (5/7/96). Range-Finding Developmental Toxicity Study in New Zealand White Rabbits. Laboratory Report No. 399-182. An unpublished study report prepared at MPI Research, Mattawan, MI. 105 pages.
44464944	83-3	Schardein, James L. (6/5/97). A Developmental Toxicity Study of D2341 in Rabbits. Laboratory Report No. WIL-155037. An unpublished study report prepared at WIL Research Laboratories, Inc., Ashland, OH. 462 pages.
44464945	83-3	Schardein, James L. (6/5/97). A Developmental Toxicity Study of D2341 in Rats. Laboratory Report No. WIL-155036. An unpublished study report prepared at WIL Research Laboratories, Inc., Ashland, OH. 366 pages.
44464946	83-4	Schardein, J.L. A Two-Generation Reproductive Toxicity Study of D2341 in Rats. Laboratory Project No. WIL-155039. An unpublished study report through one generation prepared at WIL Research Laboratories, Inc., Ashland, OH. 1578 pages.
44464947	84-2	Wagner, V.O. and N. Coffman. (7/9/96). Bacterial Reverse Mutation Assay with an Independent Repeat Assay (Ames Assay). Laboratory Project No. G96AJ85.502001. An unpublished study report prepared at Microbiological Associates, Inc., Rockville, MD. 80 pages.
44464948	84-2	Gudi, Ramadevi (10/4/96). Micronucleus Cytogenetic Assay in Mice. Laboratory Project No. G96AJ85.122. An unpublished study report prepared at Microbiological Associates, Inc., Rockville, MD. 41 pages.

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EPA MRID No.	GUIDELINE REF. NO.	STUDY
44464949	84-2	San, R. H.C. and J.J. Clarke (9/30/96). <i>In Vitro</i> Mammalian Cell Gene Mutation Test with an Independent Repeat Assay (Mouse Lymphoma Mutagenesis Assay). Laboratory Project No. G96AJ85.702001. An unpublished study report prepared at Microbiological Associates, Inc., Rockville, MD. 64 pages.
44464950	84-2	Gudi, R. and E.H. Schadly. (12/3/96). <i>In Vitro</i> Mammalian Cytogenetic Test with an Independent Repeat Assay. Laboratory Project No. G96AJ85.335. An unpublished study report prepared at Microbiological Associates, Inc., Rockville, MD. 69 pages.
44464951	85-1	Andre, J.C. and R.H. McClanahan. (2/21/97). Pilot study of the Routes of Elimination of Radiolabel Following Oral Administration of ¹⁴ C-D2341 to Sprague-Dawley Rats. Laboratory Project No. 95-0045. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 78 pages.
ADMIN	85-1 870.7485	McLanahan, R.H. (No date). Metabolism of [¹⁴ C] D2341 in Rats (unaudited). Laboratory Project No. 95-0089. An unpublished study report being prepared at Ricerca, Inc., Painesville, OH. 15 pages.
	141-1	Palmer, S.J. and Joann B. Beavers (7/31/97). D2341 Technical: An Acute Contact Toxicity Study with the Honey Bee. Laboratory Report No. 117-170. An unpublished study report prepared at Wildlife International Ltd., Easton, Maryland. 45 pages.
44464952	161-1	Shah, J.F. (8/11/97). A Hydrolysis Study of D2341. Laboratory Project No. 95-006. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 182 pages.
44796701	161-1	Findak, D., D. DiFrancesco, J.F. Shah (3/19/99). A Hydrolysis Study of D2341 (Report Amendment). Laboratory project No. 95-006. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 45 pages.
44464953	161-2	Shah, J.F. (2/20/97). Aqueous Photolysis of [¹⁴ C]D2341 at pH 5. Laboratory Project No. 95-0032. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 131 pages.

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Part 1 – Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. NO.	STUDY
44522601	161-3	Shah, J.F. (12/19/97). Photolysis of [¹⁴ C]D2341 on Soil. UCC Project No. 96022. An unpublished study report prepared by Ricerca, Inc., Painesville, OH. 118 pages.
44464954	162-1	Lee, D.Y. and N.R. Lenz, R.M. McCall, D.N. Pellack (8/22/96). Aerobic Soil Metabolism of [¹⁴ C] D2341. Laboratory Project No. 95233. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 143 pages.
44522602	162-3	Lentz, N.R. (3/6/98). Anaerobic Aquatic Metabolism of [¹⁴ C] D2341. UCC Project No. 95235. An unpublished study report prepared by Ricerca, Inc., Painesville, OH. 143 pages.
44859702	162-3	Lentz, N.R. (6/14/99). Report Amendment Number One - Anaerobic Aquatic Metabolism of [¹⁴ C] D2341. UCC Project No. 95-0115. An unpublished study report prepared by Ricerca, Inc., Painesville, OH. 9 pages.
44464955	163-1	Hatzenbeler, C.J. (2/19/97). Soil Column Leaching Study of [¹⁴ C]D2341. Laboratory Project No. 96-0024. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 78 pages.
44464956	163-1	Huhtanen, C.F. (4/15/97). Soil Adsorption and Desorption of [¹⁴ C]D-1989. Laboratory Project No. 96-0056. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 82 pages.
4464957	164-1	Jablonski, J.E. (9/11/97). Terrestrial Field Dissipation of D2341 Applied to Bareground in North Carolina. Laboratory Project No. 96-0034. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 296 pages.
44464958	164-1	Jablonski, J.E. (9/17/97). Terrestrial Field Dissipation of D2341 Applied to Bareground in Washington. Laboratory Project No. 96-0035. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 328 pages.
NA	171-3	Directions for Use - Proposed Label in Reduced Risk Package and with Application for Registration

3. STUDIES PREVIOUSLY SUBMITTED FOR NON- FOOD USE REGISTRATION

Pesticide Product Data Submission for Floramite (contains active ingredient bifenazate) and Bifenazate Technical
Part 1 – Studies Using Bifenazate Technical

EPA MRID No.	GUIDELINE REF. NO.	STUDY
44773402	875.2000 875.2100	Korpalski, S.J. (3/3/99). Floramite 50WP on Spathiphyllum: Dislodgeable Foliar Residue Study. Lab Project No. RP-98008. An unpublished report of preliminary data prepared at Uniroyal Chemical Co., Bethany, CT. 10 pages.
4485701	875.2000 875.2100	Korpalski, S.J. (6/18/99). Floramite 50WP on Spathiphyllum: Dislodgeable Foliar Residue Study. Lab Project No. RP-98008. An unpublished study report prepared at Uniroyal Chemical Co., Bethany, CT. 251 pages.
44779602	NA	McManus, J.P. (3/2/99). Bifenazate: Results of Non-GLP ¹⁴ C Bifenazate Dissipation Study on a Spathiphyllum Plant. No project number. An unpublished study report prepared at Uniroyal Chemical Co., Middlebury, CT. 7 pages.
44773401	NA	Lengen, M.R., et. al. (3/2/99). Response to Initial EPA Findings RE: Avian Risk from Use of Floramite (A.I. Bifenazate). No project number. An unpublished summary report of preliminary data prepared at Uniroyal Chemical Co., Bethany, CT. 9 pages.

DATA MATRIX

3. STUDIES PREVIOUSLY SUBMITTED FOR NON-FOOD USE REGISTRATION

Studies Submitted in Support of Floramite Registration for Use on Ornamentals
(not needed for Bifenazate Technical data support)
Part 2 – Studies Using Floramite

EPA MRID No	GUIDELINE REF. No.	STUDY
44462301	61-1 830.1550	Drozdic, M.D. (8/20/96). Product Identity and Disclosure of Ingredients for Floramite. Uniroyal Chemical Company, Inc. Report No. 9598. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 5 pages plus Confidential Attachment.
44462302	61-2(a)	Drozdic, M.D. (8/20/96). Beginning Materials and Manufacturing Process for Floramite. Uniroyal Chemical Company, Inc. Report No. 9599. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
44462303	61-2(b)	Drozdic, M.D. (8/20/96). Theoretical Discussion of Formation of Impurities for Floramite. Uniroyal Chemical Company, Inc. Report No. 95100. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment.
44462304	62-1 830.1700	Tutty, D.G. (4/2/97). Preliminary Analysis of D2341 50WP. Uniroyal Chemical Company, Inc. Report No. 95101. An unpublished study report prepared at Guelph Research Laboratories, Uniroyal Chemical Ltd., Guelph, Ontario, Canada. 8 pages.
44462305	62-2 830.1750	Drozdic, M.D. (8/20/96). Certification of Limits for Floramite. Uniroyal Chemical Company, Inc. Report No. 95102. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 5 pages + Confidential Attachment.
44462306	62-3 830.1800	Tutty, D.G. (7/30/97). Analytical method for the Determination of Experimental Miticide D2341 in D2341 50WP. Uniroyal Chemical Company, Inc. Report No. 95103. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 28 pages.

3. STUDIES PREVIOUSLY SUBMITTED FOR NON-FOOD USE REGISTRATION

Studies Submitted in Support of Floramite Registration for Use on Ornamentals
(not needed for Bifenazate Technical data support)
Part 2 - Studies Using Floramite

EPA MRID No.	GUIDELINE REF. NO.	STUDY
44462307	63-2 to -4, -7, -12 63-14 to -21	Drozdzick, M.D. (9/97). Product Chemistry Data - Summary: Floramite. Prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 5 pages.
44462308	81-1	Hoffman, G.M. (8/8/96). Acute Oral Toxicity Study with D2341 50WP (UBI-9195-1) in Rats. Laboratory Report No. 95-1205. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 39 pages.
44462309	81-1	Hoffman, G.M. (8/8/96). Acute Oral Toxicity Study with D2341 50WP (UBI-9195-1) in Mice. Laboratory Report No. 95-1204. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 39 pages.
44462310	81-2	Hoffman, G.M. (8/8/96). Acute Dermal Toxicity Study with D2341 50WP (UBI-9195-1) in Rats. Laboratory Report No. 95-1206. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 20 pages.
44462311	81-3	Hoffman, G.M. (8/8/96). An Acute (4-Hour) Inhalation Toxicity Study of D2341 50WP (UBI-9195-1) in the Rat via Nose-Only Exposure. Laboratory Report No. 95-5240. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 61 pages.
44462312	81-4	Hoffman, G.M. (8/8/96). Primary Eye Irritation Study with D2341 50WP (UBI-9195-1) in Rabbits. Laboratory Report No. 95-1208. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 26 pages.
44462313	81-5	Hoffman, G.M. (8/8/96). Primary Dermal Irritation Study with D2341 50WP (UBI-9195-1) in Rabbits. Laboratory Report No. 95-1207. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 19 pages.
44462314	81-6	Hoffman, G.M. (8/8/96). Closed-Patch Repeated Insult Dermal Sensitization Study with D2341 50WP (UBI-9195-1) in Guinea Pigs. Laboratory Report No. 95-1209. An unpublished study report prepared at Huntingdon Life Sciences, East Millstone, New Jersey. 34 pages.

DATA MATRIX

4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No	GUIDELINE REF. No.	STUDY
45052202	61-1 830.1550	White, C.K. (11/16/98). Bifenazate Product Identity and Composition. Uniroyal Chemical Project No. 98248. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 4 pgs. ³
45052203	61-1	Drozdzick, M.D. (12/16/99). Product Identity and Disclosure of Ingredients for Acramite 50WS. Uniroyal Chemical Project No. 9598A. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 4 pages plus Confidential Attachment. ³
45239401	NA	White, C.K. (10/13/00). Uniroyal Chemical Response to EPA Review of Bifenazate Product Chemistry studies. No project number. An unpublished response to EPA questions, prepared at Uniroyal Chemical Co., Middlebury, CT. 4 pages plus Confidential Attachment 6 pgs. ⁴
45239402	830.1620	Feiccabrino, J.A., (9/13/00). Detailed Description of Bifenazate Production Process. Uniroyal Project No. 2000-178. An unpublished study report prepared at Uniroyal Chemical Co., Middlebury, CT. 4 pages plus Confidential Attachment 10 pages. ⁴
45239403	EU Sec. A.10	Donnelly, S.L. (11/26/96). Determination of the Flammability of D2341 Technical. Uniroyal Chemical Ltd. Project No. 96107. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 8 pgs. ⁴

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4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45239404	Notification 9, NohSan #5089 (Japan)	Friedlander B. T. (8/28/98). The Color of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98030. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 20 pgs. ⁴
45239405	Notification 9, NohSan #5089 (Japan)	Friedlander B. T. (11/17/98). The Physical State of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98031. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 19 pgs. ⁴
45239406	Notification 9, NohSan #5089 (Japan)	Friedlander B. T. (11/17/98). The Odor of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98032. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 18 pgs. ⁴
45239407	Notification 9, NohSan #5089 (Japan)	Riggs, A.S. (8/31/98). The Melting Point Range of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98033. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 19 pgs. ⁴
45239408	Notification 9, NohSan #5089 (Japan)	Stevenson, W. J. (9/11/98). Determination of the Density of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98035. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 22 pgs. ⁴
45239409	Notification 9, NohSan #5089 (Japan)	Stevenson, W. J. (9/11/98). Determination of the Accelerated Storage Stability of Purified D2341 Experimental Miticide. Uniroyal Chemical Ltd. Project No. 98036. An unpublished study report prepared at Uniroyal Chemical Ltd., Guelph, Ontario Canada. 33 pgs. ⁴
45144003	71-4	Frey, L.T. et. al., (4/27/00). D2341 Technical: A Reproduction Study with the Mallard. Lab Report No. 117-174. An unpublished study report prepared at Wildlife International, Easton, MD. 137 pgs.

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4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45052212	71-4(a)	Pedersen, C.A. (9/17/99). Avian Reproductive Toxicity Study with D2341 Technical in Bobwhite Quail. Laboratory Project No. 109-030-07. An unpublished study report prepared at Bio-Life Associates, Ltd., Neillsville, WI. 493 pgs.
45144004	71-4(a)	Pedersen, C.A., (4/19/00). Avian Reproductive Toxicity Study with D2341 Technical in Bobwhite Quail. Laboratory Project No. BLAL #109-030-07. An unpublished study report prepared at Bio-Life Associates, Inc., Neillsville, WI. 495 pgs.
45052215	72-3	Graves, W.C. and H.O. Krieger (3/26/99). D2341 Technical (Bifenazate): A 96-Hour Shell Deposition Test with the Eastern Oyster (<i>Crassostrea virginica</i>). Laboratory Project No. 117A-106. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 71 pgs.
45052216	72-4	Drottar, K.R. and H.O. Krueger (6/3/99). D2341 Technical (Bifenazate): A Flow Through Life-Cycle Toxicity Test with the Cladoceran (<i>Daphnia magna</i>). Laboratory Project No. 117A-107. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 78 pgs.
45052219	850.5400	Drottar, K.R. and Krueger, H.O. (10/27/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the Freshwater Alga (<i>Selenastrum capricornutum</i>). Laboratory Project No. 117A-111. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 61 pgs.
45052220	850.5400	Drottar, K.R. and Krueger, H.O. (10/27/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the Freshwater Blue-Green Alga (<i>Anabaena flos-aquae</i>). Laboratory Project No. 117A-109A. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 60 pgs.

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4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No	GUIDELINE REF. No	STUDY
45052217	850.4100 850.4225	Porch, J.R. and H.O. Krueger (5/10/99). UCC-D2341-50W: A Toxicity Test to Determine the Effects of the Test Substance on Seedling Emergence of Ten Species of Plants. Laboratory Project No. 117-172. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 85 pgs.
45076502	850.4150 850.4250	Porch, J.R. and H.O. Krueger (5/10/99). UCC-D2341-50W: A Toxicity Test to Determine the Effects of the Test Substance on Vegetative Vigor of Ten Species of Plants. Laboratory Project No. 117-173. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 82 pgs.
45052218	850.4400	Drott, K.R. and Krueger, H.O. (10/27/99). D2341 Technical (bifenazate): A 7-Day Toxicity Test with Duckweed (<i>Lemna gibba</i> G3). Laboratory Project No. 117A-113. An unpublished study report prepared at Wildlife International Ltd., Easton, MD. 56 pgs.
45144001	NA	Walls, C., (5/4/00). Dietary Exposure and Risk Assessment: Bifenazate. Lab Report No. BIFENAZATE 00-01. An unpublished report prepared at Uniroyal Chemical Co., Inc. 86 pgs.
45052221	83-1	Goldenthal, E.I. (1/20/99). One Year Dietary Toxicity Study in Dogs. Laboratory Project No. 399-192. An unpublished study report prepared at MPI Research, Mattawan, MI. 503 pgs.
45052222	83-2	Ivett, J.L. (3/18/99). Dietary Oncogenicity Study in Mice with D2341. Laboratory Project No. 798-230. An unpublished study report prepared at Covance Laboratories, Inc., Vienna, VA. 1701 pgs.
45076503	83-4	Schardein, James L. (3/10/99). A Two-Generation Reproductive Toxicity Study of D2341 in Rats. Laboratory Project No. WIL-155039. An unpublished study report prepared at WIL Research Laboratories, Inc., Ashland, OH. 6615 pgs.

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4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45076504	83-5	Ivett, J.L. (3/19/99). 104-Week Combined Chronic Dietary Toxicity and Oncogenicity Study in Rats with D2341. Laboratory Project No. 798-229. An unpublished study report prepared at Covance Laboratories, Inc., Vienna, VA. 3102 pgs.
45052223	85-1	McClanahan, R.H. (3/26/98). Metabolism of [¹⁴ C] D2341 in Rats. Laboratory Project No. 95-0089. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 546 pgs.
45052305	141-2	Hummel, R.L. (12/22/99). Final Report for the Evaluation of Toxicity of Residues of Bifenazate (UCC D2341 50WP) on Alfalfa to Honey Bees (<i>Apis mellifera</i>). Laboratory Project No. 11521A002. An unpublished study report prepared at Landis International, Inc., Valdosta, GA. 91 pgs.
45144002	162-1	Nag, J.K. and R.R. Regis, (5/9/00). Aerobic Soil Metabolism of ¹⁴ C-4-Methoxybiphenyl. Lab Report No. 99009. An unpublished study report prepared at Uniroyal Chemical Co., Inc. Middlebury, CT. 149 pgs.
45052306	164-1	Jablonski, J.E. (11/18/98). Terrestrial Field Dissipation of D2341 Applied to Bareground in California. Laboratory Project No. 96-0033. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 318 pgs.
45052307	164-1	Jablonski, J.E. (12/8/99). Stability of D2341 and Metabolites D1989 and D3598 in Soil during Freezer Storage. Laboratory Project No. 96-0036. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 229 pgs.
Not yet assigned	850-7100	Batorewicz, W. (2/23/01). Analytical Method for the Determination of Bifenazate Metabolite, 4-Methoxy-1,1'Biphenyl, in Water. Project No. 2000-184. An unpublished study report prepared at Uniroyal Chemical Co., Middlebury, CT. 79 pgs. ³

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Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45052311	860.1000 860.1340	Batorewicz, W. (2/10/00). Independent Laboratory Validation: Analytical Method for the Analysis of D2341 and D3598 in Apples. Uniroyal Project No. 99214. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 79 pgs.
45052224	860.1000 860.1340	Batorewicz, W. (2/10/00). Independent Laboratory Validation. Analytical Procedure for Determination of D2341, D3598, A1530 and A1530-Sulfate in Milk and Bovine Tissues. Laboratory Project No. 99007. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Middlebury, CT. 170 pgs.
45052225	860.1300 (formerly 171-4)	McClanahan, R.H., J.F. Shah, and H.M. O'Meara (7/12/99). Metabolism of [¹⁴ C] D2341 in Laying Hens. Uniroyal Project No. 97005. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 205 pgs.
45052310	171-4	Panthani, A.M. and C.J. Hatzenbeler (5/29/98). Metabolism of [¹⁴ C] D2341 in Apples. Uniroyal Project No. 96111. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 191 pgs.
45052301	860.1300	McClanahan, R.H. and M.A. Bayus (8/31/99). Metabolism of [¹⁴ C] D2341 in Lactating Goats. Uniroyal Project No. 96047. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 291 pgs.
45052312	171-4	Panthani, A.M. and C.J. Hatzenbeler (2/26/98). Metabolism of [¹⁴ C]D2341 in Citrus. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 217 pgs.
45052313	171-4	Panthani, A.M. and C.J. Hatzenbeler (1/4/00). Metabolism of [¹⁴ C]D2341 in Cotton. Laboratory Project No. 97-0024. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 190 pgs.

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4. STUDIES PREVIOUSLY SUBMITTED FOR FOOD USE REGISTRATION

Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No	GUIDELINE REF. NO.	STUDY
45052315	860.1340	Jablonski, J.E. (8/20/98). Validation of the Crop Residue Method for Individual Analysis of D2341 and D3598 in Apples. Laboratory Project No. 6998. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 60 pgs.
45052317	860.1340	Wiedmann, J.L. (8/5/99). Residue Analytical method Validation for Bifenazate and Metabolite in Various Fruit Matrices. Laboratory Project No. 98018. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 110 pgs.
45052302	860.1340	Jablonski, J.E. (10/20/99). Validation of the Residue Method for D2341 and D3598 and A1530 in Bovine Tissues and Milk. Laboratory Project No. 98221. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 233 pgs.
45052318	860.1360	Anderson, C.R.H. and D.A. Koch (10/28/99). Multiresidue Method Testing for Bifenazate and UCC-D3598. Laboratory Project No. RP-99022. An unpublished study report prepared at ABC Laboratories, Inc., Columbia, MO. 61 pgs. ³
45052319	860.1380	Weidmann, J.L. and S.J. Korpalski (9/15/99). Stability of Bifenazate and Metabolite in Fruit Matrices during Freezer Storage. Laboratory Project No. 98019. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 229 pgs.
45052303	860.1380	Jablonski, J.E. (10/20/99). Stability of D2341 and Metabolites D3598 and A1530 in Bovine Tissues and Milk During Freezer Storage. Laboratory Project No. 98222. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 217 pgs.
45052304	860.1480	Wiedmann, J.L. and J.E. Jablonski (12/10/99). Meat and Milk Magnitude of the Residue Study in Lactating Dairy Cows Dosed with D2341 Technical. Laboratory Project No. 109-032-10. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 301 pgs. ³

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Studies Submitted in Support of Acramite-50 WS Registration
For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45052308	-	Shah, J.F. (2/27/98). Photolysis of [¹⁴ C]D2341 in Natural Water. Laboratory Project No. 96092. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 134 pgs.
45052320	860.1000 860.1500	Gaydosh, K.A. (1/6/00). UCC-D2341 50WP on Apples: Magnitude of the Residue and MOR Decline Study. Laboratory Project No. RP-98004. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 329 pgs.
45076505	860.1000 860.1500	Gaydosh, K.A. (1/17/00). UCC-D2341 50WP on Strawberries: Magnitude of the Residue Study. Laboratory Project No. RP-99007. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 255 pgs.
45052321	860.1000 860.1500	Gaydosh, K.A. (2/16/00). UCC-D2341 50WP on Pears: Magnitude of the Residue Study. Laboratory Project No. RP-98005. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 247 pgs.
45052323	860.1000 860.1500	Korpalski, S.J. (2/17/00). UCC-D2341 50WP on Hops: Magnitude of the Residue Study. Laboratory Project No. RP-99006. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 235 pgs.
45052322	860.1000 860.1500	Korpalski, S.J. (11/11/99). UCC-D2341 50WP on Grapes: Magnitude of the Residue Study. Laboratory Project No. RP-98014. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 425 pgs.
45052325	860.1000 860.1520	Korpalski, S.J. (3/30/99). UCC-D2341 50WP on Grapes: Processing and Decline Study. Laboratory Project No. RP-98007. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 274 pgs.

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For Use on Grapes, Pome Fruit, Stone Fruit, Hops, Strawberries and Cotton²

EPA MRID No.	GUIDELINE REF. NO.	STUDY
45052326	860.1000 860.1500 860.1520	Korpalski, S.J. and R.J. Puhl (1/10/00). UCC-D2341 50WP on Stonefruit: Magnitude of the Residue and Processing Study. Laboratory Project No. RP-98006. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 957 pgs.
45052327	860.1000 860.1500 860.1520	Belcher, T.I. (2/15/00). UCC-D2341 50WP on Cotton: Magnitude of the Residue and Processing Study. Laboratory Project No. RP-99008. An unpublished study report prepared at Excel Research, Inc. Fresno, CA. 446 pgs.
45052324	860.1000 860.1500 860.1520	Gaydosh, K.A. (2/1/00). UCC-D2341 50WP on Apples: Processing Study. Laboratory Project No. RP-98013. An unpublished study report prepared at Uniroyal Chemical Company, Inc., Bethany, CT. 216 pgs.
45052328	860.1850	Findak, D.C. (1/21/00). A Confined Rotational Crop Study with [¹⁴ C]D2341. Laboratory Project No. 97004. An unpublished study report prepared at Ricerca, Inc., Painesville, OH. 138 pgs.

¹ Correspondence is organized in separate folders by date. Dates in table refer to dates in correspondence folders.

² All studies are determined by EPA to be core (meets guideline requirements) unless otherwise noted.

³ This study was submitted in support of the revised CSF. A summary is not included in this submission (see cover letter).

⁴ This report, which uses a higher percentage Bifenazate product, was submitted to clarify EPA reviewer questions. A summary is not included in this submission (see cover letter).

DATA MATRIX

5. 6(a)(2) STUDIES

Part 1 – 6(a)(2) Studies Previously Submitted since Submittal of Floramite Registration Package

EPA MRID #	GUIDELINE REF. #	STUDY
45141801	OECD 850.1010	Drottar, K.R. and Krueger, H.O. (6/5/00). D1989: A 48-Hour Flow-Through Acute Toxicity Test with the Cladoceran (<i>Daphnia magna</i>). Wildlife Project No. 117A-115. An unpublished report prepared by Wildlife International Ltd., Easton, MD. 44 pages.
45385101	OECD 870.2600	Rakhra, N. and Donald, E. (no date). Bifenazate Technical Magnusson-Kligman Test in Guinea Pigs for Delayed Skin Sensitization. Inveresk Project No. 575740. An unpublished study report prepared at Inveresk Research Lab, Tranent, Scotland. 38 pages.

DATA MATRIX

5. 6(a)(2) STUDIES

Part 2 – 6(a)(2) Studies Previously Submitted for Floramite Registration

EPA MRID #	GUIDELINE REF. #	STUDY
44896001	850.5400	Drottar, K.R. and Krueger, H.O. (8/3/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the Freshwater Alga (<i>Navicula pelliculosa</i>). Wildlife Project No. 117A-110. An unpublished report prepared by Wildlife International Ltd., Easton, MD. 60 pages.
44896002	850.5400	Drottar, K.R. and Krueger, H.O. (8/3/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the Marine Diatom (<i>Skeletonema costatum</i>). Wildlife Project No. 117A-112A. An unpublished report prepared by Wildlife International Ltd., Easton, MD. 59 pages.
44872901	71-4(b)	Pedersen, C.A. (6/28/99). Avian Reproductive Toxicity Study in Mallard Ducks with D2341 Technical. Report No. BLAL 109-031-08. An unpublished report prepared by Bio-Life Associates, Ltd., Neillsville, WI. 496 pages.
44881301	72-4	Drottar, K.R. and Krueger, H.O. (7/7/99). D2341 Technical (bifenazate): An Early Life-Stage Toxicity Test with the Rainbow Trout (<i>Oncorhynchus mykiss</i>). Wildlife Project No. 117A-108. An unpublished report prepared by Wildlife International Ltd., Easton, MD. 107 pages.

DATA MATRIX

5. 6(a)(2) STUDIES

6(a)(2) Studies Previously Submitted for Acramite-50 WS

EPA MRID #	GUIDELINE REF. #	STUDY
44896001	850.5400	Drottar, K.R. and Krueger, H.O. (8/3/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the freshwater Alga (<i>Navicula pelliculosa</i>). Wildlife Project No. 117A-110. An unpublished report prepared by Wildlife International Ltd., Easton, MD for Uniroyal Chemical Co., Bethany, CT. 60 pages.
44896002	8500-5400	Drottar, K.R. and Krueger, H.O. (8/3/99). D2341 Technical (bifenazate): A 96-Hour Toxicity Test with the Marine Diatom (<i>Skeletonema costatum</i>). Wildlife Project No. 117A-112A. An unpublished report prepared by Wildlife International Ltd., Easton, MD for Uniroyal Chemical Co., Bethany, CT. 59 pages.
44872901	71-4(b)	Pedersen, C.A. (6/28/99). Avian Reproductive Toxicity Study in Mallard Ducks with D2341 Technical. Report No. BLAL 109-031-08. An unpublished report prepared by Bio-Life Associates, Ltd., Neillsville, WI. 496 pages.
44881301	72-4	Drottar, K.R. and Krueger, H.O. (7/7/99). D2341 Technical (bifenazate): An Early Life-Stage Toxicity Test with the Rainbow Trout (<i>Oncorhynchus mykiss</i>). Wildlife Project No. 117A-108. An unpublished report prepared by Wildlife International Ltd., Easton, MD for Uniroyal Chemical Co., Bethany, CT. 107 pages.

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